FCC RF EXPOSURE REPORT

For

Smart A19 LED Light Bulb, Color Changing

MODEL NUMBER: 13aSB-A800ST-Q1T

REPORT NUMBER: 4790970147-1-RF-3

ISSUE DATE: September 6, 2023

FCC ID: 2AB2Q13ASBA800STQ1T

Prepared for

LEEDARSON LIGHTING CO., LTD.
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Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	September 6, 2023	Initial Issue	

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	LEEDARSON LIGHTING CO., LTD.
Address:	Xingda Road, Xingtai Industrial Zone, Changtai County, Zhangzhou, Fujian, China

Manufacturer Information

Company Name:	LEEDARSON LIGHTING CO., LTD.
Address:	Xingtai Industrial Zone, Economic Development Zone, Changtai County, Zhangzhou city, Fujian Province, P.R.China

EUT Information

EUT Name:	Smart A19 LED Light Bulb, Color Changing
Model:	13aSB-A800ST-Q1T
Series Model:	Refer to section 4
Model Difference:	Refer to section 4
Brand:	LEEDARSON
Sample Received Date:	August 18, 2023
Sample Status:	Normal
Sample ID:	6378336
Date of Tested:	August 25, 2023 to September 6, 2023

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
447498 D01 General RF Exposure Guidance v06	PASS
FCC 47CFR§2.1091	PASS

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4102.01)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1187)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Delcaration of Conformity (DoC) and Certification rules **ISED (Company No.: 21320)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046. **VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011

Note: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China.

4. DESCRIPTION OF EUT

EUT Name	Smart A19 LED Light Bulb, Color Changing
Model	13aSB-A800ST-Q1T
FCC Series Model	13aSB-A800ST-Q1T_#-Pack (Where "#" may be "2" - "99"), B0CG5VDC8P, B0CG5VZ8KT
FCC Model Difference	B0CG5VZ8KT,13aSB-A800ST-Q1T_#-Pack (Where "#" may be "2" - "99") have the same technical construction including circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction with 13aSB-A800ST-Q1T. The difference lies only model name and package style. B0CG5VDC8P is all the same a to 13aSB-A800ST-Q1T expect the model name. all these changes do not degrade the unwanted emissions of the certified product.

Product Description (BLE)	Frequency Range:	2402 MHz to 2480 MHz
	Type of Modulation:	GFSK
	Data Rate:	1Mbps
Product Description (2.4G WLAN)	Frequency Range:	2412 MHz to 2462 MHz
	Type of Modulation:	IEEE802.11b/g/n HT20/n HT40
	Radio Technology:	IEEE 802.11b: DSSS(CCK, DQPSK, DBPSK) IEEE 802.11g/n: OFDM(64-QAM, 16-QAM, QPSK, BPSK)
Normal Test Voltage:		AC 120 V, 60 Hz

5. REQUIREMENT

LIMIT AND CALCULATION METHOD

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

RF EXPOSURE LIMIT

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (Minutes)
0.3 -- 1.34	614	1.63	(100)*	30
1.34 -- 30	824/f	2.19/f	($180/f^2$)*	30
30 -- 300	27.5	0.073	0.2	30
300 -- 1500	--	--	f/1500	30
1500 -- 100,000	--	--	1.0	30

CALCULATION METHOD

$S=PG/4\pi R^2$

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

CALCULATED RESULTS

Worst Case					
Mode	Max Tune Up Power	Antenna Gain	Power Density	Power Density Limit	Test Result
	dBm	dBi	mW/cm2	mW/cm2	--
BLE	13.6	0.57	0.00520	1.0	Complies
WIFI 2.4G	18.5	0.57	0.01606	1.0	Complies

Note:

1. The Power comes from report operation description.
2. BLE and WIFI cannot support simultaneous emission.
3. The minimum separation distance of the device is greater than 20 cm, and 20cm separation distance was set for calculation.
4. Calculate by WORST-CASE mode.

END OF REPORT